Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application.

Listing of Claims:

1. (Previously Amended) A data buffer, the data buffer comprising:

an entry section; and

a signaling circuit coupled to the entry section for providing a signal to transfer a portion of a data cell from the entry section prior to the data cell being completely received by the entry section, the signal being provided once an amount of data received by the entry section reaches a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell;

the signaling circuit providing a write signal to the entry section to begin writing another data cell into the entry section prior to the data cell being completely read in the entry section, the signal being provided based on a second predetermined threshold.

2. (Canceled)

3. (Currently Amended) The data buffer of claim [[2]]1 wherein the entry section comprises a buffer entry section.

4. (Original) The data buffer of claim 3 wherein the signaling circuit comprises an asynchronous signaling circuit.

5. (Original) The data buffer of claim 4 wherein the buffer entry section comprises a write element and a read element, wherein the write element and the read element each comprise an entry pointer, an item pointer and an entry counter.

6. (Original) The data buffer of claim 5 wherein the asynchronous signaling circuit comprises an add signaling portion and a remove signaling portion.

7. (Currently Amended) A data buffer, the data buffer comprising:

an entry section including a buffer entry section, the buffer entry section comprising a write element and a read element, the write element and the read element each comprising an entry pointer, an item pointer and an entry counter; and

a signaling circuit coupled to the entry section for providing a signal to transfer a portion of a data cell from the entry section prior to the data cell being completely received by the entry section, the signal circuit comprising an asynchronous signaling circuit including an add signaling portion and a remove signaling portion;

wherein the signal is provided once the amount of data received by the entry section reaches a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell; and

wherein the asynchronous signaling circuit provides a write signal to the write element to begin writing another data cell into the buffer entry section prior to the data cell being completely

read from the buffer entry section wherein the signal is provided based on a <u>second</u> predetermined

threshold.

8. (Currently Amended) A data buffer for buffering a data cell, the data buffer comprising:

a buffer entry section including a write element and a read element, wherein the write

element and the read element each comprise an entry pointer, an item pointer and an entry counter;

and

an asynchronous signaling circuit coupled to the buffer entry section, wherein the

asynchronous signaling circuit provides a first signal to the read element to transfer data from the

buffer entry section prior to a data cell being completely received by the buffer entry section

wherein the first signal is provided once the amount of data received by the buffer entry section

reaches a predetermined threshold, <u>the predetermined threshold being sufficient to ensure that</u>

<u>reading of the data cell cannot get ahead of the writing of the data cell</u>;

wherein the asynchronous signaling circuit provides a write signal to the write element to

begin writing another data cell into the buffer entry section prior to the data cell being completely

read from the read element and wherein the signal is provided based on a <u>second</u> predetermined

threshold.

9. (Original) The data buffer of claim 8 wherein the asynchronous signaling circuit

comprises an add signaling portion and a remove signaling portion.

10. (Currently Amended) A data buffer for buffering a data cell, the data buffer

comprising:

a buffer entry section including a write element and a read element, wherein the write element and the read element each comprise an entry pointer, an item pointer and an entry counter; and

an asynchronous signaling circuit coupled to the buffer entry section, wherein the asynchronous signaling circuit provides a first signal to the read element to transfer data from the buffer entry section prior to a data cell being completely received by the buffer entry section, the asynchronous signaling circuit including an add signaling portion and a remove signaling portion wherein the first signal is provided once the amount of data received by the buffer entry section reaches a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell;

wherein the asynchronous signaling circuit provides a second signal to the write element to begin writing another data cell into the buffer entry section prior to the data cell being completely read from the buffer entry section wherein the second signal is provided once the amount of data received by the buffer entry section reaches a second predetermined threshold.

11. (Currently Amended) A data buffer for buffering a data cell, the data buffer comprising:

a buffer entry section including a write element and a read element, wherein the write element and the read element each comprise an entry pointer, an entry counter and an item pointer; and

an asynchronous signaling circuit coupled to the buffer entry section, the asynchronous signaling circuit comprising an add signaling portion and a remove signaling portion, wherein the asynchronous signaling circuit provides a first signal to the read element prior to the data cell being completely written into the buffer entry section and a second signal to the write element prior to the

data cell being completely read from the buffer entry section, wherein the first signal is provided once the amount of data received by the buffer entry section reaches a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell, and the second signal is provided once the amount of data read from the buffer entry section reaches a second predetermined threshold.

12. (Currently Amended) A method of transferring data in a data buffer, the method comprising the steps of:

a)   allowing a data cell to begin being written into the data buffer; and

b)   reading the data cell from the data buffer prior to the data cell being completely written into the data buffer,

          wherein the reading step (b) commences reading the data cell based upon an amount of data written into the data buffer reaching a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell; and

          wherein the reading in step (b) provides a write signal for a subsequent data cell based upon a second predetermined threshold being reached.

13. (Original) The method of claim 12 further comprising:

c)   allowing another data cell to begin being written into the data buffer prior to the data cell being completely read out of the data buffer.

14. (Original) The method of claim 13 wherein the data cell comprises a plurality of portions and the data buffer comprises:

a buffer entry section including a write element and a read element; and

an asynchronous signaling circuit coupled to the buffer entry section.

15. (Original) The method of claim 14 wherein the asynchronous signaling circuit comprises an add signaling portion and a remove signaling portion.

16. (Original) The method claim 15 wherein the write element comprises a first entry pointer, a first item pointer, and a first entry counter and the read element comprises a second entry pointer, a second item pointer and a second entry counter.

17. (Currently Amended) The method of claim 16 wherein step a) further comprises:

a1)   allowing the write element to write each of the plurality of data cell portions to the buffer entry section via an access to the buffer entry section;

a2)   incrementing the first item pointer each time the buffer entry section is accessed; and

a3)   allowing the asynchronous signaling circuit to provide a signal to the read element once the first item pointer reaches [[a]]the predetermined threshold.

18. (Original) The method of claim 17 wherein the signal of step a3) comprises an add signal.

19. (Original) The method of claim 18 wherein step a) further comprises:

a4)   incrementing the second entry counter.

20. (Currently Amended) A method of transferring data in a data buffer, the method comprising the steps of:

a) allowing a data cell to begin being written into the data buffer, the data cell including a plurality of portions, the data buffer including a buffer entry section and an asynchronous signaling circuit coupled to the buffer entry section, the buffer entry section including a write element and a read element, the asynchronous signaling circuit including an add signaling portion and a remove signaling portion, the write element including a first entry pointer, a first item pointer, and a first entry counter and the read element comprises a second entry pointer, a second item pointer and a second entry counter;

b) reading the data cell from the data buffer prior to the data cell being completely written into the data buffer, wherein step b) further comprises:

b1) allowing the read element to receive a signal from the asynchronous signaling circuit, the signal being provided once an amount of data received by the data buffer reaches a predetermined threshold, the predetermined threshold being sufficient to ensure that reading of the data cell cannot get ahead of the writing of the data cell;

b2) allowing the read element to read each of the plurality of data cell portions from the buffer entry section via an access to the buffer entry section;

b3) incrementing the second item pointer each time the buffer entry section is accessed; and

b4) allowing the asynchronous signaling circuit to provide a signal to the write element once the second item pointer reaches a second predetermined threshold; and

c) allowing another data cell to begin being written into the data buffer prior to the data cell being completely read out of the data buffer.

21. (Original) The method of claim 20 further comprising:

b5)   decrementing the first entry counter.

22. (Original) The method of claim 21 wherein the signal of step b1) comprises an add

signal and the signal of step b4) comprises a remove signal.